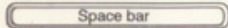
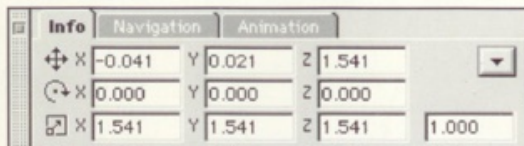


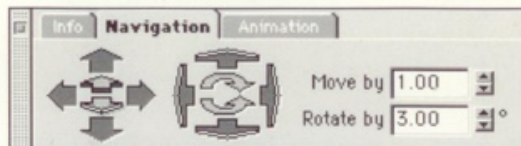
Primitive Tools	Extrude Tools	Lathe Tools	SplineForm Tools	Particle Tools	Lights	Cameras	Link Tools	Zoom Tools	Rendering Tools
1. Cube	7. Triangular Prism	10. Glass	14. Twisted	19. Particle	21. Distant	27. Free Camera	29. Free	33. Magnify	35. Ray Trace
2. Sphere	8. Prism w/ hole	11. Torus	15. Lofted	20 Particle Warp	22. Point	28. Targeted Camera	30. Pivot	34. Marquee Magnify	Marquee
3. Cylinder	9. Path Extrusion	12. Tapered Cylinder	16. Pyramid		23. Tube		31. Position		36. Phong Shade
4. Cone		13. Partial Lathe	17. Spiral		24. Spot		32. Full		Marquee
5. Square			18. Banana		25. Targeted Spot				
6. Infinite Plane					26. Ambient				

	WIN	+ 	+ 	+ 	+ 	Double-Click on tool in toolbar		
Keyboard Shortcut	Tool	Description	MAC	+ 	+ 	+ 	+ 	Double-Click on tool in toolbar
		 V-Plane Moves object up, down, left and right		Constrains movement to axis perpendicular to object's face or to horizontal plane	Mac: Object selection pop-up menu	Duplicate object while moving	Offset object from its centerpoint	—
2x		 H-Plane Moves object in, out, left & right			(Win: Right-click)			
		 Rotate Towards/Away Rotates object towards or away in active window		Constrain rotation around axis perpendicular to object's face or edge				
2x		 Rotate Around Rotates object around axis going into active window		Trackball rotation		Duplicate object while rotating	Toggle to V-plane tool	—
3x		 Rotate Left/Right Rotates object left or right in active window						
		 Uniform Scale Scales the selected object in all directions	—	Mac: Object selection pop-up menu		Duplicate object while scaling	Toggle to V-plane tool	—
2x		 Squash & Stretch Scales object in a single dimension		Scale all three dimension values equally	Mac: Object selection pop-up menu	Duplicate object while scaling	Toggle to V-plane tool	—
	 Space bar Space Bar Toggle to hand tool			Constrains pan to vertical/ horizon- tal	In Standard View: Toggle to Magnify tool (+) In Camera View: Dolly in/out,	Pan in wireframe mode +  (Win) +  (Mac) Toggle to Magnify tool (-)	—	—

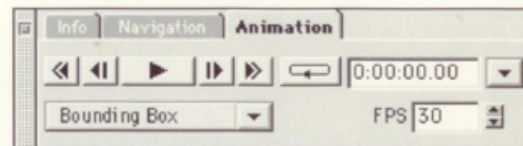
		WIN	+ (Shift)	+ (Control)	+ (Alt)	+ (F2)	Double-Click on tool in toolbar
Keyboard Shortcut	Tool	MAC	+ (Shift)	+ (Command)	+ (Option)	+ (Control)	Double-Click on tool in toolbar
	 Link Tools Links a child object to parent object		—	Mac: Object selection pop-up menu	—	Toggle to V-plane tool	—
2x 	 Unlink Unlinks a child object		—	Mac: Object selection pop-up menu	—	Toggle to V-plane tool	—
	 Magnifying Glass Zooms in/out		—	—	Zoom in wireframe mode	Toggle to V-plane tool	Return to default magnification level
	 Marquee Magnifying Glass Zooms in/out		—	—	Zoom out	Toggle to V-plane tool	Return to default magnification level
	 Hand (Navigation) Pans the scene	Constrains to vertical or horizontal movement		In Camera View: Dolly in/out	Pan in wireframe mode	Toggle to V-plane tool	In Free Camera View: Point camera at origin In Standard View: Return to default viewing position.
	 Orbit Rotate around target	Constrain to up/down		Constrain to left/right	Orbit in wireframe mode	Toggle to V-plane tool	—
2x 	 Roll Bank left/right	—		—	Roll in wireframe mode	Toggle to V-plane tool	—
	 Marquee Render Ray Traces the selected portion of the scene	Constrain Marquee to square		—	—	—	Render active window
	 Phong Shades the selected portion of the scene						



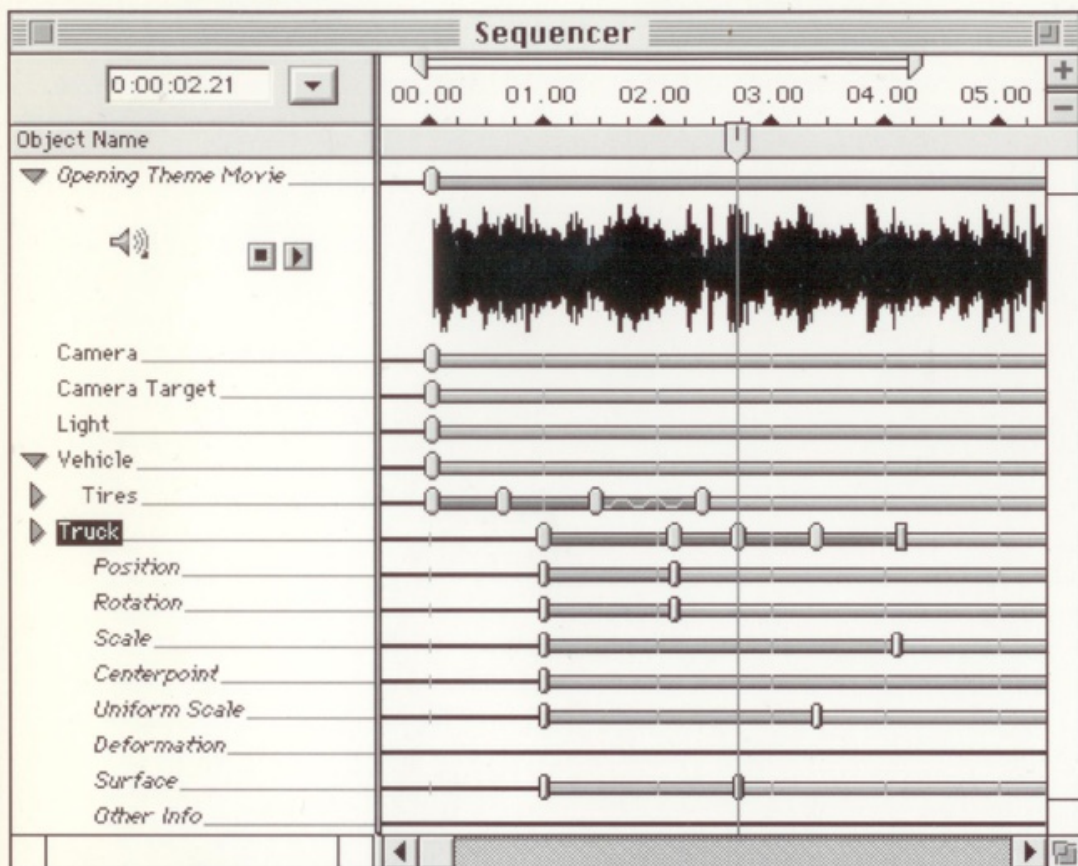
Information Floater - Set values for position, rotation, scale, and centerpoint offset



Navigation Floater - Pan, dolly, tilt, truck, crane, and roll controls for active window



Animation Floater - Controls to play, stop, and rewind, & other animation preview settings



Scale Eventmarks: Hold the COMMAND(Mac) or CONTROL(Win) key while dragging multiple eventmarks

Duplicate Eventmarks: Hold the OPTION(Mac) or ALT(Win) key while dragging eventmark(s)

Snap to Other Eventmarks: Hold the SHIFT key while dragging eventmarks, the Time Marker, or Punch In/Out markers

Snap to Timebar Increments: Hold the CONTROL(Mac) or F2(Win) key while dragging eventmarks, the Time Marker, or Punch In/Out markers

Show or Hide the Sub-Event Timelines: Double-click an object name in the sequencer

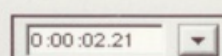
Select All of the Eventmarks for an Object: COMMAND (Mac)-double-click or CONTROL(Win)-double-click an object name. Eventmarks can also be selected by dragging a marquee around them with the Arrow tool or by holding the SHIFT key while clicking

Eventmark Info: Double-click on eventmark(s)

Linking Objects: Drag child object onto parent object

Unlinking Objects: Drag linked object between two other unlinked objects.

Re-Build Object List: Command (Mac) or Control (Win) click on "Object Name" to reset the object list to its original state.



Scene Time Box: Enter values directly into the Time Box to move to that time



Plus Sign: Click to zoom in on the timebar



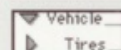
Minus Sign: Click to zoom out on the timebar



Punch In/Out Markers: Use the Punch In/Out Markers to preview or render a portion of the sequence



Scene Time Marker: The Scene Time Marker indicates the time in the sequence that the view windows reflect



Object Hierarchy Arrow: Click on arrow to show or hide an object's child objects. Option (Mac) or Alt (Win) click to open the first level of ALL hierarchies. Command+Opt. (Mac) or Control+Alt (Win) click to open/close all levels of all hierarchies



Audio Controls: Play & stop an imported audio track



Linear Motion: A blue bar indicates linear motion



Spline Motion: A purple bar with a wavy line indicates spline-based motion



End Animation: A square eventmark indicates a "death" event



Sub-Event Bar: A pink bar indicates animation of a sub-event



Sub-Events: Object Attribute Timelines let you sequence events for just one attribute of an object

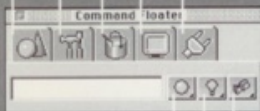


Object List/Timeline Divider: Drag this bar to increase or decrease the space in the object list

Located at bottom of sequencer

Command Floater

A B C D E



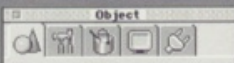
F G H

The Command Floater functions as many palettes in one. The appearance of the rest of the floater is dependent on which tab you have selected and what type of object is selected.

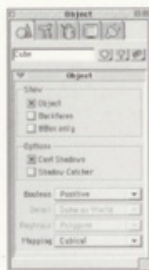
Command Tabs Selection Pop-Ups

- A** - Object Tab
- B** - Modifiers Tab
- C** - Surfaces Tab
- D** - Display Tab
- E** - Filters Tab
- F** - Selects objects
- G** - Selects lights
- H** - Selects cameras

A



The information displayed in the Object tab of the Command Floater depends on the type of object selected in the scene.



Primitive, Lathe, SplineForm, or Mesh Object Selected

Controls visibility, shadow casting, boolean mode, mapping mode



Particle System Selected

Controls emit duration, collisions, particle rendering style



Camera Selected

Controls focal length, fog



Extruded Object Selected

Adds bevel control to command floater



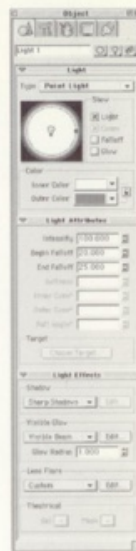
Terrain Selected

Controls type & size of terrain



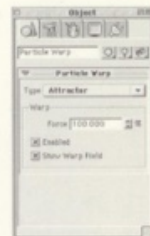
Text Selected

Controls to edit text, spacing and bevel



Light Selected

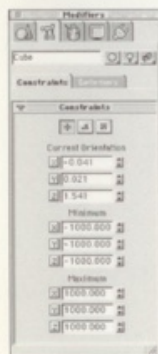
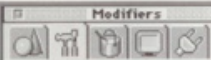
Controls light, intensity, shadows, lens flare, visible glow



Particle Warp Selected

Controls warp type & enable/disable

B



Constraints Selected

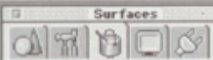
Controls lock type & linking constraints



Deform Selected

Controls parameters for object deformation

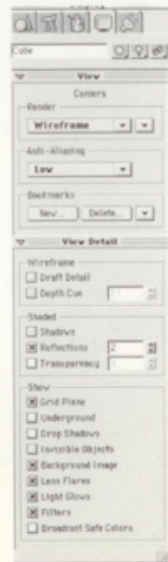
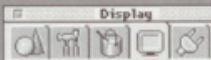
C



Surface Selected

Controls applying and editing of surfaces

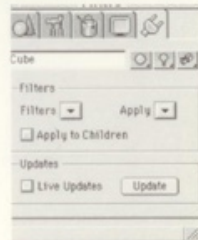
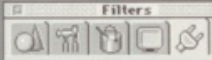
D



Display Selected

Controls rendering quality, anti-aliasing and view settings per window

E



Filters Selected

Applies & edits After Effects™ compatible plug-in Filters

SplineForm Workshop Tools

Keyboard Shortcut	Tool	Description	WIN	+ (Shift)	+ (Control)	+ (Alt)	+ (F2)	Double-Click on tool in toolbar
			MAC	+ (Shift)	+ (Command)	+ (Option)	+ (Control)	Double-Click on tool in toolbar
		Arrow Select curve or point. Click and drag for marquee selection						
		Rotate* Rotate Selection						
		Scale* Scale Selection						
		Flip* Flip Selection						
		Pen* Creates Bezier lines						
		Pencil* Creates freeform lines						
		Razor Cuts Lines						
		Polygon* Makes Polygon shapes						
		Text Types text						
		Magnifying Glass Magnifies view						
Space bar								
Space Bar Toggle to hand tool								

* When drawing with the Pen or Pencil tool in the Path View window with no points selected, (or when drawing with the Polygon tool), the Rails will be replaced if they are active; otherwise, the path will be replaced.

Mesh Editor Tools

Keyboard Shortcut	Tool	Description	WIN	+ (Shift)	+ (Control)	+ (Alt)	+ (F2)	Double-Click on tool in toolbar
			MAC	+ (Shift)	+ (Command)	+ (Option)	+ (Control)	Double-Click on tool in toolbar
		Arrow Select and move points. Move parallel to view						
		Move parallel to working plane						
		Move perpendicular to working plane						
		Move perpendicular to object faces						
		Rotate*						
		Scale*						
		3D Deformations						
		Twist						
		Bend						
		Taper						
		Shear						
		Bulge						
		Wave						
		Scale						
		3D Rotate						
		Magnifying Glass						
Space bar								
Space Bar Toggle to hand tool								

* These tools are used in two steps. First click to place the center of rotation or scale and then click and drag to scale or rotate.